

Castlemaine Naturalist

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Monthly newsletter of the
Castlemaine Field Naturalists Club Inc.



White-faced Heron, L. Joanna - photo Noel Young

CASTLEMAINE FIELD NATURALISTS CLUB PRESIDENT'S REPORT 2016

Sometimes it takes quite a while to decide how to start a report on the previous year. Have you forgotten something important or put things in the wrong order. This year is a significant exception to the rule. Yes, we have had a successful year, but the death of a founding member puts it all into perspective. No doubt many of you will have read the article written by Geraldine in the December newsletter. I have recently re-read it and find that I could not find a way to say anything better. I spoke with Geraldine earlier this week and asked her permission to use it in this report and she kindly agreed.

Ern Perkins was a founding member of our club in 1976 and for the next forty years worked quietly and diligently building and documenting a vast knowledge of the natural environment of our district. He shared this knowledge generously and became widely respected, locally and throughout the state and country, among expert and budding naturalists alike. He embraced all the changes in technology that came his way. He always invited input from fellow members and generously attributed his work to the Club when we all knew most of what he achieved was his work alone - ably assisted by Lesley, who supported him in all that he did. Many of us wanted to assist his work but we could not quite match his ability to get the task done. Over the months ahead, the volume of his work and the legacy he has left for all naturalists and environmentalists will slowly be realised. We have a huge task ahead of us to honour, maintain and build upon his vast efforts. A giant tree has fallen.

I remember leading a club excursion many years ago – it was a touch ambitious – walking down Mount Alexander from the top to the water

channel. Ern was there and suggested we change course slightly. We duly did and he found a large Tree Fern which he knew was there, the only one on the mount and for many miles around.

He also taught me how to differentiate between Australian Raven and Little Ravens without hearing them call. If there are only two together then they are Australian Ravens, any more they are Little Ravens. I have managed to spread that word through the birding community.

I trust that the legacy he has left can be continued by members of the club both present and future. I know that committee members are investigating ways in which his research can be stored and used by future generations. Vale Ern.

So to conclude I would like to thank members of last year's committee and if I could do that by asking those of them who are present to stand so that we can thank them for their efforts in the usual manner.

My three years as President have come to an end. It has been an interesting experience and one which I could recommend to anyone else in the room. I would also like to thank the Committee for making it a very easy and enjoyable experience.

- Nigel Harland

Fires – new knowns, new directions and old failures

Peter Turner

Dr David Cheal, now at the Centre for Environmental Management at Federal University, Ballarat, was guest speaker at our February meeting. He presented new insights into the role of fire, with a focus on our regions' Box-Ironbark forests, on an extremely hot night that reinforced to the large and attentive audience the threats such weather brings to our environment and our properties. David's talk covered recent research on planned burns, the new risk-based planning strategies and the responses over time of forests to fire, ending with a vision of how we might wish our local woodland areas to look.

Research published since the devastating 2009 fires has shown that planned burns remote from houses and other critical assets do not reduce the risk of buildings being destroyed. It is trees, shrubs and other flammable materials within 40 metres of the structure that determine the risk – and even "bushfire proof" houses can be burnt. Recently, the Victorian Government has changed from the post-2009 "burn 5% each year" policy to risk based planning of fuel reduction burns. (CFNC members heard about this new approach from Paul Bates of DELWP last year). This involves identifying factors such as the assets vulnerable to wildfire, the likelihood of wildfires and their potential behaviours, the likelihood of planned burns escaping, and the nature of the vulnerability of assets. Thus high fuel levels *per se* are not a risk if there are no critical assets in the area.

The natural environment is arguably a critical asset – especially to field naturalists! Turning to ecological impacts of fire, David Cheal outlined the concept of Tolerable

Fire Intervals (TFIs) for different Ecological Vegetation Classes (EVC) – the minimum and maximum periods which an EVC can be sustained. Too frequent fires can destroy the essential diversity and vigour of (for example) a type of woodland, while too long an interval between fires can result in overly mature plants that are not being regenerated. We were shown maps of Victoria illustrating how in 2000 large areas of the eastern forests of the state's public land were a mix of sections below, within and above the relevant TFIs, whereas by 2010 the majority of the area was below the TFIs, with juvenile vegetation. Notably, there is little data on the fire history of the Box-Ironbark forests.

In 2007 David Cheal and two colleagues published a report for the North Central CMA, "Ecological Burning of Box-Ironbark Forests", with a literature review and guidelines for a management strategy. They reported that Inland Plains Woodlands and Box-Ironbark Forests can tolerate planned burns, but do not need them to retain long term health. However, Grassy/Heathy Dry Forests senesce about 45 years after a burn. The minimum TFIs vary depending on the type of fire:

For Inland Plains Woodlands	5 years (planned burn)	30 yr (wildfire)
Box Ironbark Forests	12 yr (planned)	30 yr (wildfire)
Grassy/Heathy Dry Forests	10 yr (planned)	15 yr (wildfire).

In Box-Ironbark Forests, fires can alter the ecological balance through loss of logs and litter and of mature trees, through development of high densities of tree regrowth, and changes to soil disturbance (e.g., in the distant past, bandicoots maintained soil structure). Seed can remain stored in the soil for many years or decades, and regenerate without fire. After a fire, the bare ground can be replaced by dense, flammable undergrowth within 5 years, leading to flammability higher than before the fire, then falling over the long term (20-30 years). But there is much we still do not know, with further research needed on issues including lifetime of seeds in soils, effects of droughts, regeneration without fires and plant species longevitys.

In concluding, David asked "What do we want the landscape to be?". The answer is complex, with conflicting needs, and still much to be learnt about how we might achieve an agreed outcome. He believes that for the Box-Ironbark Forests, success will result in fewer, larger trees, plenty of logs and litter, a healthy diverse shrub understory, common tussock grasses and abundant orchid species (based on evidence that the local indigenous peoples used orchids as a sustainable food source!).

The March Field Trip will take us to an area where the impacts of fire can be compared with adjacent areas that have not been burnt for many decades.

Right: Under the 5% policy, mature trees in remote bush were often lost, reducing habitat value.



- Photo Noel Young

Nature Notes for March (1947)

George Broadway

Continuing our series of looking at what readers of "Wildlife" magazine had sent in to be identified by the Editor, Crosbie Morrison. In particular I am interested in noting specimens which continue to be sent in even though they had been identified in previous issues.

A Tree Cricket for example. Already noted last year. *Paragryllacris combusta*, lives under bark and rotting wood. Feeds on grubs and insects.

From Red cliffs. A Bombardier Beetle, one of the Carabid beetles which emits a puff of irritating vapour from the hind end when disturbed, making a distinct "pop".

E Brighton. Tree cricket again.

W Brunswick. Another Tree cricket

Oakleigh. Rootboring weevil, *Leptops hopei*. Young stages live in the ground and do considerable damage to the roots of fruit trees.

Frankston. Golden Lacewing Fly, often seen on the outside of a window pane at night when the eyes gleam golden in the light. The larva is the Aphis Lion which feeds on aphids

Charlton. A Longicorn beetle, *Phorocantha tricusps*, Noted last year. The larvae tunnel in gum trees, the adults are sometimes found in the tunnels, perhaps not so much these days when fewer people are burning firewood.

Cann River. Pupae of the Cabbage White Butterfly, but which had been parasitised by a small native wasp, so that the actual pupae inside the pupal case were wasp larvae

Moolap: White Tussock Moth. These moths have little bunches of tightly packed scales at the tail end, which they use to cover the eggs as they are laid, so concealing them.

Cannie: Water-stick Bug, *Ranatra*. The larva or nymph forms of many insects are found in water, but this is an adult insect. It has a stout sucking beak which it uses to prey tadpoles and other water creatures, sometimes giving swimmers a bit of a prod. Can swim under water and also fly from pond to pond.

Williams W.A. Large Shot-hole Borer Beetle, *Bostrychopsis* sp. Bores large, perfectly round holes in dead branches of trees, not usually in commercial timber.

Halls Gap. Bird of Paradise Fly, *Callipappus* sp. Only the male has the glistening Bird of Paradise tail, the female is a wingless grub-like creature, much larger than the male, which feeds on tree branches by sucking sap.

Gonn Crossing. Long-nosed Elephant beetle, one of the larger weevils which attack plants

Castlemaine: Large Robber Fly, *Blepharotes coriarius*. The largest Australian fly, it has strong flight wings, a wicked piercing beak and excellent long-range eyesight which enables it to prey on insects on the wing, including even large wasps and tiger beetles.

S.Caulfield. Cage moth cocoon, a hairy affair which should not be handled as the hairs are barbed and can cause a rash. From the cocoon will emerge a rather dingy moth.

Rosebud and Box Hill. Botany Bay Diamond Beetle, a black and greeny-silver weevil which feeds mainly on Black Wattle and is widely distributed, despite the name.

Warrandyte. Wattle Goat Moth, largest Victorian moth. The larvae bore holes in wattle trees.

Newfield: *Nephila* spider, spinner of the large strong webs common in the bush at the moment.

Kirribilli NSW. A large centipede, over 20 cm in length, which had been killed by the sender. Noted that while in the wild they attack insects which attack forest trees, in the home where it was found it could be dangerous as it would be capable of delivering a poisonous bite.

E Brunswick. Worm-snake, *Typhlops* sp. A true snake but harmless. Noted elsewhere that with the exception of *Typhlops*, snakes do not burrow.

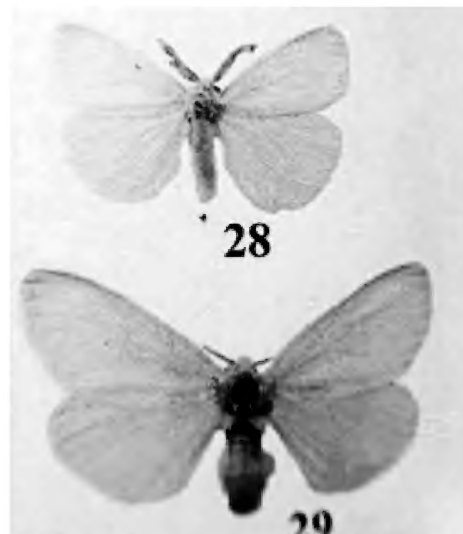
Nurrabiel. A young ringtail possum, unusually red in the coat

There was also an interesting article concerning the N.Z. Huia bird, now sadly extinct. The male bird had a curved beak which it used to extract grubs out of dead trees, but then the female with her straight beak would have to put it down his throat. This meant that neither bird could feed itself.

The visit of the Duke and Duchess of York at the beginning of the century (20th) led to the extinction. At a welcome ceremony, one of the native guides removed a feather from her hair and placed it in the hat band of the Duke. Till then only high-caste Maori women wore the feathers but once the Duke had worn one there was great demand for them and the price shot up to 5 shillings each, then to one pound each. As a result the birds were soon hunted to extinction, pursued relentlessly to the last bird.



Above: The extinct Huia
Right: White Tussock Moth, by Peter Marriot



Butterfly Observations – January 2017

By Chris Timewell

During January, I have continued monthly observations of butterflies in my urban Castlemaine garden. Not nearly as many around this month. Not sure why. Perhaps drier and less flowering?

- Green Grass Dart (*Ocybadistes walkeri*) – Not many. Often perched on Wallaby Grass stems.
- Australian Painted Lady (*Vanessa kershawi*) – Common. Throughout garden, lawn, ground.
- Common Grass-blue (*Zizania otis*) – Common. Mostly flying low over lawn and landing on grass and low shrubs.
- Caper White (*Belenois java*) – Passing through, landing briefly.
- Unidentified Swallowtail species (*Papilio* sp.) – seen only briefly passing overhead.

Photo observations:

Marli Wallace:

"from my Christmas trip to Toberua Island in the Lomaiviti Group of Islands off Suva. We took a boat trip to (yes you might expect this) a tiny island called Bird Island. This is my attempt at photographing Red Footed Booby chicks in the mangroves with a few adults."



Noel Young:

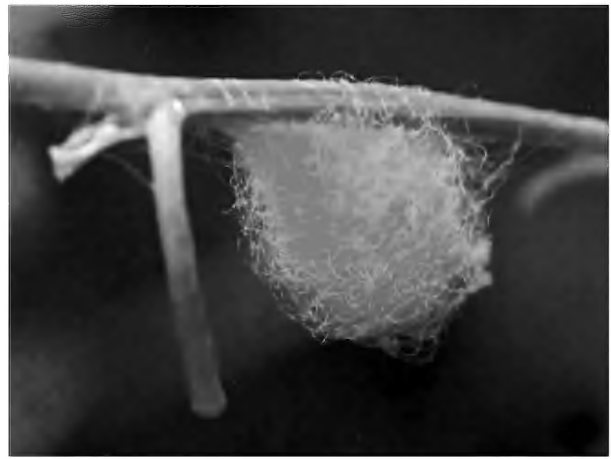


Our Powerful Owls have been seen in the botanical gardens from time to time. Both adults visit but I have not seen the juvenile for some time. These photos were taken on February 7th, with the owls in separate trees. The male? at left is clutching a Magpie. Its partner (right) appears to have missed out, as it has a piece of cloth (security blanket?)



Denis Hurley - January observations

January 8: Spider Family Araneidae - female *Cyclosa trilobata* - Three-lobed Orb Weaver with egg sac. [data from Jennifer Shield - Spiders of Bendigo]
Web in a potted Dianella.



10: Seven Blue-banded bees working around the Dianella

12: Blue wrens have returned

17: I watched a Wolf Spider "pop out" and take a passing Sugar Ant which seemed to be attracted to the leaf-covered entrance.

21: Yellow-faced Honeyeaters gathering seed pods from Dianella (they feed the pods to young in the nest)

23: A juvenile Grey Currawong picking Dianella seeds (as do Crimson Rosellas and Bronzewing Pigeons)

26: my visiting Pacific Black Ducks have left!

27: Expedition Pass Res., A one metre plus Brown Snake swimming west near beach area.

Bird Quiz

As Nigel is away on a trip, we will have to wait until next month for his account of last month's bird photograph.

In the meantime here is one to think about from my archives.

This little chap occurs in Victoria, but is rare in our Shire.

- ED



Disclaimer: The opinions expressed in this newsletter are those of the contributors and not necessarily those of the club

Castlemaine Field Naturalists

Coming events

Fri Mar 10 meeting: speaker DAMIAN KELLY “Combining Archaeology and Ecology - an exploration of Aboriginal fishing in the Murray-Darling Basin”

Sat Mar 11 field trip: to the Youngmans track, to compare burnt and unburnt areas. [deferred from last month]

Fri April 7* meeting: speaker to be confirmed

* NB. Meeting a week earlier to avoid Easter

VISITORS ARE WELCOME AT CLUB ACTIVITIES

General meetings - (second Friday of each month, except January) are held in the Uniting Church (UCA) Hall (enter from Lyttleton St.) at 7.30 pm.

Field Trips - (Saturday following the general meeting) leave from the car park opposite Castle Motel, Duke Street at 1.30pm sharp unless stated otherwise. BYO morning and/or afternoon tea. Outdoor excursions are likely to be cancelled in extreme weather conditions. There are NO excursions on total fire ban days.

Business meetings - third Thursday of each month, except December, at George Broadways; 24a Greenhill Ave., at 6.00 pm. Members are invited to attend.

Club website (Web master: Chris Timewell) - <http://castlemainefnc.wordpress.com/>

Subscriptions for 2017

Ordinary membership: Single \$30, Family \$40

Pensioner or student: Single \$25, Family \$30

Subscription includes postage of the monthly newsletter, Castlemaine Naturalist

2017 Committee

President:	George Broadway	5472 2513
Secretary:	Peter Turner	5470 6891
Treasurer:	Geoff Harris	

Nigel Harland	5474 8246	Richard Piesse	0448 572 867
Cheryl Taylor		Noel Young (Editor)	5472 1345

[email newsletter material to: noel.young@optusnet.com.au]

**Castlemaine Field Naturalists Club Inc. PO Box 324, Castlemaine, 3450.
Inc #A0003010B**